

PATENT  
Case No. 659-1149  
Client Case No. 18,666

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Richlen, et al.

Serial No.: 10/748,712

Filing Date: December 30, 2003

For: THREE-PIECE GARMENT  
HAVING AN ABSORBENT  
INSERT SECURED WITH  
VARIABLE ADHESIVE REGIONS

Examiner: Chapman, Ginger T.

Group Art Unit No.: 3761

**DECLARATION UNDER 37 CFR § 1.131**

We, Sandra A. Richlen, Paul Christoffel, Suzanne M. Schmoker, Paul Hasler, Sarah Freiburger, David Bishop and Melanie Milslagle, hereby declare that:

1. We are the named inventors in the above-referenced patent application.
2. As evidenced by the attached documents (Tabs 1 and 2), we conceived of and reduced to practice in this country an embodiment of the invention claimed in the above-referenced application prior to May 8, 2003, which is the publication date of U.S. Publication No. US 2003/0088230 A1 (corresponding to Appl. No. 10/053,251 filed November 2, 2001 - now USP 6,755,808). The attached documents are true and correct copies of the original documents with the exception of the redaction of various dates that appear on the originals, and also the redaction of other information not relevant to the present inquiry.

3. As evidenced by the attached Invention Disclosure (Tab 1), which was signed by us prior to May 8, 2003, we conceived of a disposable garment “constructed of a three-piece or H-shaped chassis which incorporates the application of an additional adhesive at the location where the crotch edge of the chassis meets with the absorbent insert” (Tab 1 at 1). “The second adhesive provides additional insert attachment strength at the intersection of the absorbent insert with both the front and back chassis panels” (Tab 1 at 1). “This invention is unique in that it utilizes a secondary adhesive to enhance product integrity and performance only in targeted areas of a three-piece product” (Tab 1 at 1).

4. As evidenced by the attached Invention Disclosure (Tab 1), and further by the drawings of the RSR 4732 product (Tab 2) referred to therein, we reduced the invention to practice prior to May 8, 2003. The RSR 4732 product, which was made prior to May 8, 2003, included front and rear body panels having terminal waist and crotch edges (Tabs 1 and 2). An absorbent insert having first and second longitudinally spaced end portions and opposite laterally spaced side edges bridged the gap between the front and rear body panels (Tab 2). The first and second ends of the absorbent insert were connected to the front and rear body panels with first and second adhesive regions (Tabs 1 at 2 and Tab 2). The first adhesive region included an intermittent application to the absorbent insert, while the second adhesive region included a bead application along the terminal crotch edge of the body panels (Tab 1 at 1 and 2 and Tab 2). Other various aspects of our invention are also shown and disclosed in the attached Invention Disclosure and drawing (Tabs 1 and 2).

5. All statements made of my/our own knowledge are true, and all statements made on information and belief are believed to be true. I am aware that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. 1001) and may jeopardize the validity of this application and any patent issuing therefrom.

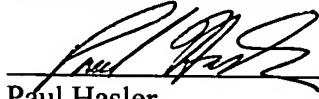
Sandra A. Richlen

Dated: \_\_\_\_\_

Paul Christoffel

Dated: \_\_\_\_\_

Suzanne M. Schmoker



Paul Hasler

Dated: \_\_\_\_\_

Dated: 06/23/06

Sarah Freiburger

Dated: \_\_\_\_\_

David Bishop

Dated: \_\_\_\_\_

Melanie Milslagle

Dated: \_\_\_\_\_

## Invention Disclosure

**Submitter:**

Answer all parts of this form. Two corroborators must understand the invention. Photocopy the completed form in duplex format, making sure that each odd-numbered page is backed by an even-numbered page with the signature block. The submitter(s) and both corroborators must sign and date the reverse side of the duplexed form in blue ink, as well as every additional sheet submitted with it. Use given name with middle initial. The last part of this form is recommended when additional sheets are required. If your group has a patent facilitator, preview the original with him or her. Send the signed, duplexed form to Kimberly-Clark Corporation, Patent Department, Neenah, WI.

Disclosure No.	186666
Department	
Recommended Attorney	
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**PAR Number: 244****Name of Affiliate/Subsidiary/Licensee, if applicable:****Key Words****DISPOSABLE, ATTACHMENT STRENGTH, ABSORBENT INSERT, Part, Adhesive****1. Title****THREE-PIECE DISPOSABLE GARMENT WITH IMPROVED ATTACHMENT AND INTEGRITY****2. Description (Sign and date each page. Attach pertinent drawings, photographs, block diagrams, flow charts, etc.)****a. Summary (Should disclose invention in general, nontechnical terms)**

This invention discloses disposable garments constructed of a three-piece or H-shape chassis which incorporates the application of an additional adhesive at the location where the crotch edge of the chassis meets with the absorbent insert. The second adhesive provides additional insert attachment strength at the intersection of the absorbent insert with both the front and back chassis panels. This additional attachment strength prevents the insert and chassis from peeling away from each other in an area where there is a great deal of stress when the garment is being worn. Additionally, it improves product fit and performance by maintaining product fit and gasketing which would be lost if product integrity was sacrificed. This invention is unique in that it utilizes a secondary adhesive to enhance product integrity and performance only in targeted areas of a three-piece product. Specifically, there is higher peel strength at the intersection of the chassis with the insert. Higher peel strength may also be targeted in other areas of the intersection of the insert and chassis webs to obtain the desired product fit, integrity and leakage performance.

**b. Detailed description, including specific embodiments and applicable alternatives, ranges and products, and process/apparatus variations.**

Two webs of 0.55 osy spunbond are laminated with waist and leg elastics contained within them. A laminate such as this comprises both the front and back panel of the garment. An insert with an outer cover material of breathable stretch thermal laminate (BSTL) has approximately 7 gsm of adhesive applied to the intermittent area where it will contact the H-shape chassis. A concentrated amount of adhesive (30 gsm) is intermittently applied to the body side of the front and back panel (chassis) about 0.25" from the inside edge of the panel where the outermost portion of the chassis will intersect with the insert. The concentrated adhesive can be applied using a bead applicator or a summit applicator. This invention can be applied to a three piece DEPEND® Protective Underwear or the current DEPEND® Refastenable Underwear. Preliminary data suggest the concentrated adhesive provides a peel strength with a peak load of 7000 grams versus a peak load for the rest of the insert attachment area of between 1250 grams and 1338 grams.

**c. How does the invention distinguish from what has been done in the past and what advantages are obtained? Identify related work done by others (patents, journal articles, etc.). Identify other related disclosures of which you may have knowledge, or other work within Kimberly-Clark Corporation within the same area.**

Jen Marvin conducted a preliminary search which turned up no prior art in this area.

**3. I (We) first conceived the above idea on**

- Received by *Stebbins* as part of *Stebbins*
4. I (We) first disclosed the above idea to others on \_\_\_\_\_
5. The persons to whom the above idea was first disclosed are: Dave Swanton, Mark Jung.
6. The first written description of the above idea is in the form of trial plan dated \_\_\_\_\_ and is now located in Paul Christoffel's fire-proof safe at KCS.
7. The first sketch or drawing of the above idea was made on NA and is now located in \_\_\_\_\_ Its number is \_\_\_\_\_
8. The first sample/embodiment illustrating the above idea was made on J 2nd and is now located in Legal storage – KCS Its identification number is 1
9. The above idea was first actually tried on \_\_\_\_\_ Describe how and when it was tried, including a complete description and date of the first time the idea was tried and, if the first attempt was unsuccessful, the first time it was successfully tried.

A trial was ran at Nordson, Corp. in \_\_\_\_\_ which confirmed that increased peel strength could be achieved with a bead type adhesive application laminated between the Breathable Stretch Thermal Laminate (BSTL) and wettable liner.

This idea was first actually tried on a product during RSR 4732 which was ran at Neenah Cold Spring Facility from \_\_\_\_\_ This trial applied an intermittent bead adhesive to the bodyside liner (BSL) of the front panel, approximately  $\frac{1}{4}$ " from the inside (operator side) edge of the panel. The bead was matched with the location the insert would be applied. Products manufactured during this trial were placed in several consumer preference and technical leakage studies. A second trial was conducted which applied this concept to both the front and back panel of the H-shape product.

Submitter	<u>David F. Bishop</u> David F. Bishop	Adult Care Research/KCS	Signed
Submitter	<u>Paul Christoffel</u> Paul Christoffel	Dept./Location	
Submitter	<u>Sarah Eriehurger</u> Sarah Eriehurger	Adult Care Research/KCS	Signed
Submitter	<u>Paul Hasler</u> Paul Hasler	Dept./Location	
Submitter	<u>Melanie Milsaglo</u> Melanie Milsaglo	IC – APD/KC-WRE	Signed
Submitter	<u>Sandra A. Richter</u> Sandra A. Richter	Dept./Location	
Submitter	<u>Sue Schmoker</u> Sue Schmoker	Infant Care - MKTPLC	Signed
Submitter	<u>Jean Niemeyer</u> Jean Niemeyer	Dept./Location	
Manager (Review)	<u>Jennifer Marvin</u> Jennifer Marvin	Adult Care Research/KCS	Signed
Corporator	<u>Bridget Balogh</u> Bridget Balogh	Dept./Location	

The foregoing signed disclosure was read and understood by me on the date hereunder:

Corporator Jennifer Marvin  
Adult Care Research/KCS Signed  
Dept./Location

Corporator Bridget Balogh  
Adult Care Research/KCS Signed  
Dept./Location

## Invention Disclosure

Title

15. List the names of everyone who has contributed to this idea. (Those listed cannot be corroborators. A submitter should provide a copy of the completed disclosure to each listed K-C employee.)

Paul Christoffel, Sue Schmoker, Paul Hasler, Sarah Frieburger, David F. Bishop, Melanie Mislagle,  
Sandy Richlen

Rec'd by KC as part of 18666 on 10/23/03

Rec'd by JFB as part of 11666 on 11/27/03

Submitter	<u>David F. Bishop</u> David F. Bishop	Adult Care Research/KCS	Signed
Submitter	<u>Paul Christoffel</u> Paul Christoffel	Dept./Location	
Submitter	<u>Sarah Frieburger</u> Sarah Frieburger	Adult Care Research/KCS	Signed
Submitter	<u>Paul Hasler</u> Paul Hasler	Dept./Location	
Submitter	<u>Melanie Milsagle</u> Melanie Milsagle	IC - APD/KC-WRE	Signed
Submitter	<u>Sandra A. Richlen</u> Sandra A. Richlen	Dept./Location	
Submitter	<u>Sue Schmoker</u> Sue Schmoker	CHILD CARE Infant Care - MKTPLC	Signed
Manager (Review)	<u>Jean Niemeyer</u> Jean Niemeyer	Dept./Location	
Corrobator	<u>Jennifer Marvin</u> Jennifer Marvin	Adult Care Research/KCS	Signed
Corrobator	<u>Bridget Balogh</u> Bridget Balogh	Dept./Location	

The foregoing signed disclosure was read and understood by me on the date here

Corrobator Jennifer Marvin Adult Care Research/KCS Signed

Dept./Location

Corrobator Bridget Balogh Adult Care Research/KCS Signed

Dept./Location

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LIVE FANI ASSEMBLY

LEG CUTOUT IS DPU1

## SECTION A-A

SECTION 1

ב' טהרה

